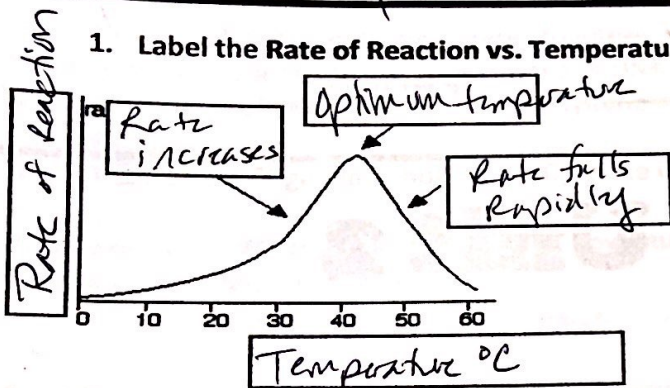


B.A.T. (Be Able To) Review



Name: Kay Period: _____

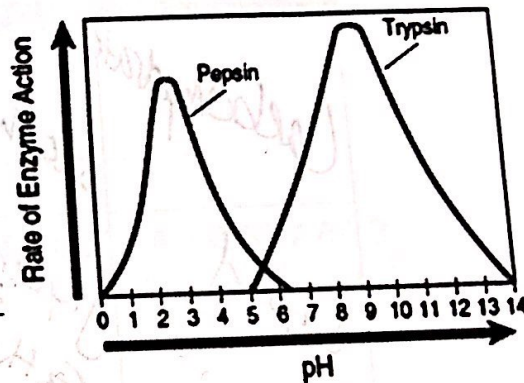
1. Label the Rate of Reaction vs. Temperature graph using the choices on the right.



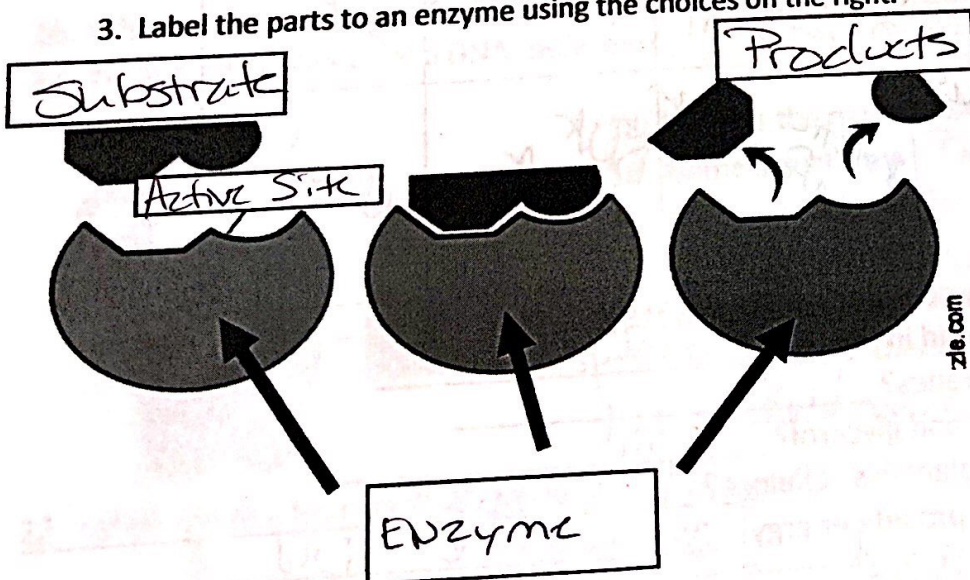
- optimum temperature
- rate falls rapidly after about 40°C
- temperature (°C)
- rate
- rate increases

2. Answer the questions about the graph on the right.

- a. What is the optimum pH level for Pepsin? 2.5
- b. What is the optimum pH level for Trypsin? 9.5
- c. What is the reaction range for pepsin? 0-6
- d. What is the reaction range for trypsin? 5-14
- e. Will pepsin denature at a pH range of 7-13? Yes
- f. Will trypsin denature at a pH range of 7-13? NO

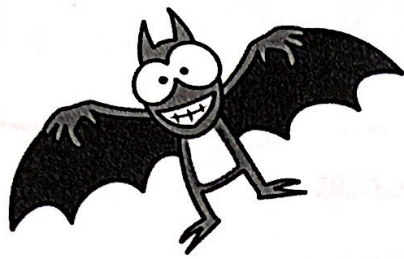


3. Label the parts to an enzyme using the choices on the right.



- Active Site
- Products
- Enzyme
- Substrate

Is the enzyme destroyed or Is the enzyme reusable?
Reusable



Name: KEY Period: _____

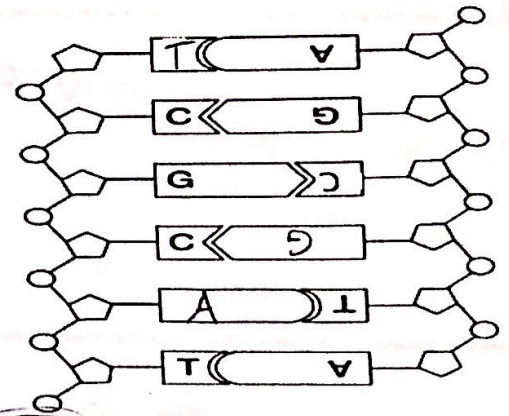
Biochemistry: Unit 2

1. Fill in the chart below:

| Name of Biomolecule | Monomer What it's made of | Function | Example | Foods |
|---------------------|---------------------------|------------------------------------------------------------------------------|----------------------------------|--------------------------------------|
| Carbohydrate | Saccharide | quick energy short term energy storage. structural part of cell walls | starch Glycogen Cellulose | vegetables fruit Bread, grains |
| Lipid | glycerol Fatty Acid | Long term energy storage Insulation Protect organs | Oil Wax fat cholesterol | Butter CRISCO Lard |
| Protein | amino acids | Transport Build cells, muscles enzymes - speed reactions, lower energy | enzymes Hormones | Beans Meat |
| Nucleic Acid | nucleotides | genetic information | DNA RNA | None! |

- What biomolecule is also called a polysaccharide? Carbohydrate
- What biomolecule examples commonly end in -ose? Carbohydrate
- What biomolecule is found in cell membranes? Lipid
- What biomolecule is made of Fatty Acids and glycerol? lipid
- What biomolecule provides structure to plants as cellulose? Carbohydrate
- What are the only two biomolecules that provide energy? Carbohydrate & lipid
- Which biomolecule provides insulation? lipid
- Which biomolecule is for building and transport of molecules? Protein
- What biomolecule is also called a polypeptide? protein

Look at the DNA strand on the right.



1. Fill in the missing bases ...
2. Circle one nucleotide ...
3. What type of bond holds these bases together? Hydrogen
4. How many nucleotides are in this image of DNA? 12
5. If there was 26% Adenine, how much thymine would there be?
26%
6. If there was 20% guanine, how much Cytosine would be present?
20%
7. If there was 14% guanine and cytosine, how much thymine would there be? (show your math)
 $14 + 14 = 28\%$ $100\% - 28\% = 72\%$ $72\% \div 2 = 36\%$ T

8. If there was 44% thymine and adenine, how much guanine would there be? (show your math)
 $44 + 44 = 88$ $100 - 88 = 12$ $12 \div 2 = 6\%$ G

9. Traits are determined by the genetic code, what part of the DNA actually carries the code?
N. bases (ATCG)

- ~~10. What is the direction that DNA?~~
- ~~11. What is the formation of DNA?~~

12. Write the complimentary bases for the following strands:

3' ATC CGG GCA TTC GCC 5'
5' TAG GCC CGT AAC CCG 3'

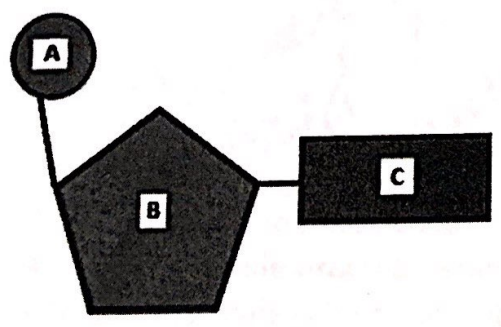
5' TTA GTA CCC TAG GGT AAC 3'
3' AAT CAT GGG ATC CATT G 5'

13. What determines what an organism is and their specific traits?

The Nitrogen bases

14. (YES/NO) Does a human and potato have the same DNA molecular parts?
15. (YES/NO) Does a human and a potato have the same nitrogenous base sequence within their DNA?

16. What is the monomer of a DNA molecule? Nucleotide
17. What is the polymer of a DNA molecule? Nucleic Acid



18. What is the name of this structure? Nucleotide
19. Name structure A Phosphate group
20. Name structure B Deoxyribose Sugar
21. Name structure C Nitrogenous base
22. What is the polymer of this structure? Nucleic Acid
23. Which part of this structure carries the genetic code
C - Nitrogenous Base

22. What are the four bases possible on a DNA nucleotide?

A T C G